

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete If Known**

Application Number	10/816,123
Filing Date	04/01/2004
First Named Inventor	Jacobson
Art Unit	2173
Examiner Name	Unassigned
Attorney Docket Number	JACO0001

Sheet 1 of 4

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
PK	a	US- 7,006,881	02-2006	Hoffberg et al	
	b	US- 2003/0115490	06-2003	Russo et al	
	c	US- 2003/0184589	10-2003	Yamada et al	
	d	US- 2005/0057339	03-2005	Ikehara et al	
	e	US- 2006/0064415	03-2006	Guyon et al	
	f	US- 2006/0101163	05-2006	Lu	
	g	US- 2006/0155398	07-2006	Hoffberg et al	
	h	US- 2006/0202956	09-2006	Lu	
	i	US- 6,400,996	06-2002	Hoffberg	
	j	US- 6,601,192	06-2003	Bowman-Amuah	
	k	US-			
	l	US-			
	m	US-			
	n	US-			
	o	US-			
	p	US-			
	q	US-			
	r	US-			
	s	US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
PK	AA	WO 2004097801	11-2004	Ahmed et al		
	BB	EP 1349046	02-2003	Fujitsu Ltd.		
	CC	WO 2002103954	12-2002	Blowulf Tech.		
	DD	WO 2003083758	10-2003	Bank25 Co., Ltd.		
	EE	JP 11119906	04-1999	Taisei Corp.		
	FF	JP 2004054395	02-2004	Nippon Electric Co.		

Examiner  
SignatureDate  
Considered

10/14/06

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-788-9199) and select option 2.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**Complete if Known**

**(Use as many sheets as necessary)**

Sheet	2	of	4
-------	---	----	---

Application Number	10/816,123
Filing Date	04/01/2004
First Named Inventor	Jacobson
Art Unit	2173
Examiner Name	Unassigned
Attorney Docket Number	JACO0001

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup> -Number <sup>4</sup> -Kind Code <sup>3</sup> (if known)	MM-DD-YYYY			
PJE	GG	EP 1685794	11-2004	Sony Corp.		
✓	HH	WO 2003007125	01-2003	Icontrol Transactions Inc		
	II					
	JJ					
	KK					
	LL					

**Examiner  
Signature**

Date  
Considered

10/14/08

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/816,123
Filing Date	04/01/2004
First Named Inventor	Jacobson
Art Unit	2173
Examiner Name	Unassigned
Attorney Docket Number	JACO0001

Sheet 3 of 4

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PK	A	GAMBOA, H. et al.; A Behavioral Biometric System Based On Human Computer Interaction; Escola Superior de Tecnologia de Set'ubal, Campo do IPS, Estefanilha, 2914-508 Set'ubal, Portugal	
	B	GOULD, S.; A Novel Approach to User Authentication Through Machine Learning of Keyboard Acoustic Emanations; CS229 MACHINE LEARNING FINAL PROJECT - GOULD sgould@stanford.ed	
	C	Mouse movement analyzer: ID someone based on their mouse movements; <a href="http://www.halfbakery.com/idea/mouse_20movement_20analyser">http://www.halfbakery.com/idea/mouse_20movement_20analyser</a>	
	D	PUSARA, M. et al.; User Re-Authentication via Mouse Movements; VizSEC/DMSEC'04, Proceedings of the 2004 ACM Workshop on Visualization and Data Mining for Computer Security, p 1-8; Washington, DC, USA; October 29, 2004	
	E	Suggested Research Topics: <a href="http://csls.pace.edu/~clappert/research/researchtopics.htm">http://csls.pace.edu/~clappert/research/researchtopics.htm</a>	
	F	PUSARA, M. et al.; User Re-Authentication via Mouse Movements; <a href="http://portal.acm.org/citation.cfm?id=1029210">http://portal.acm.org/citation.cfm?id=1029210</a>	
	G	CLAYPOOL, M. et al.; Implicit Interest Indicators; Computer Science Department, Worcester Polytechnic Institute, MA; UI'01, January 14-17, 2001, Santa Fe, New Mexico, USA	
	H	YUAN QI et al.; Context-sensitive Bayesian Classifiers and Application to Mouse Pressure Pattern Classification; Media Lab, MIT, Cambridge, MA	
	I	Secure Web Based Mail Services by Keith Pasley, CISSP on 24/01/04; <a href="http://www.infosecwriters.com/texts.php?op=display&amp;id=142">http://www.infosecwriters.com/texts.php?op=display&amp;id=142</a>	
✓	J	DAVIS, D. et al.; On-user choice in graphical password schemes; Proceedings of the 13th USENIX Security Symposium p. 151-63; USENIX Association, Berkeley, CA, USA; 2004	

Examiner Signature

Date Considered

10/14/08

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/816,123
Filing Date	04/01/2004
First Named Inventor	Jacobson
Art Unit	2173
Examiner Name	Unassigned
Attorney Docket Number	JACO0001

Sheet 4 of 4

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PK	K	ABHIJIT RAO; Inception of Relation-based User Authentication system coupled with User Behavior Analysis; Manipal Institute of Technology, Manipal, Karnataka, India; ITG Publication, December 2001: 4.1; <a href="http://www.internettg.org/newsletter/dec01/article_rao.html">http://www.internettg.org/newsletter/dec01/article_rao.html</a>	
	L	JERMYN, I. et al.; The Design And Analysis of Graphical Passwords; March 8, 1999; Department of Computer Science, New York University, USA; Jermyn@cs.nyu.edu	
	M	MOYLE, M. et al.; A Flick in the Right Direction: An Evaluation of Simple Gesture Based Controls; November 2, 2001	
	N	MOYLE, M. et al.; Analysing Mouse and Pen Flick Gestures; Human-Computer Interaction Lab, Department of Computer Science, University of Canterbury, Christchurch, New Zealand; 2002	
	O	Google Search: user authentication and mouse movement; 09/15/2006 01:47 PM;	
	P	MINGZHE ZHU; A World Wide Web Based Server for Technology Transfer and Remote Collaboration; Thesis, B.E., Tsinghua University, Beijing, 1988; M.E., Tsinghua University, Beijing, 1993; Submitted to University of Illinois at Urbana-Champaign, 1996	
	Q	HOWE, JEFF; Wired Magazine; "That Doesn't Even Look Like My Typing"; June 2005	
	R		
	S		
	T		

Examiner  
SignatureDate  
Considered

10/14/08

\*EXAMINER: Initial if reference considered; whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08A (07-05)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
is a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(Use as many sheets as necessary)*

**Complete if Known**

Application Number	10/816,123
--------------------	------------

Filing Date	04/01/2004
-------------	------------

First Named Inventor	Dov Jacobson
----------------------	--------------

Art Unit	2173
----------	------

Examiner Name	Unassigned
---------------	------------

Attorney Docket Number	JACO0001
------------------------	----------

Sheet	1	of	1
-------	---	----	---

## U. S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T*
		Country Code* Number * Kind Code* (# known)				
	AA					
	BB					

**Examiner  
Signature**

<b>Data Considered</b>	<p>1. <b>Demographic Data</b></p> <ul style="list-style-type: none"> <li>Age</li> <li>Gender</li> <li>Ethnicity</li> <li>Income Level</li> <li>Education Level</li> </ul> <p>2. <b>Behavioral Data</b></p> <ul style="list-style-type: none"> <li>Website Usage</li> <li>Product Usage</li> <li>Customer Feedback</li> <li>Churn Rate</li> <li>Retention Rate</li> </ul> <p>3. <b>Transactional Data</b></p> <ul style="list-style-type: none"> <li>Purchase History</li> <li>Order Value</li> <li>Payment Method</li> <li>Shipping Address</li> <li>Return Rate</li> </ul> <p>4. <b>Marketing Data</b></p> <ul style="list-style-type: none"> <li>Campaign Performance</li> <li>Lead Generation</li> <li>Conversion Rate</li> <li>Cost Per Acquisition (CPA)</li> <li>Return on Investment (ROI)</li> </ul> <p>5. <b>Operational Data</b></p> <ul style="list-style-type: none"> <li>Inventory Levels</li> <li>Supply Chain Efficiency</li> <li>Logistics Performance</li> <li>Customer Service Metrics</li> <li>Employee Productivity</li> </ul>
------------------------	--

10/14/08

Signature \_\_\_\_\_

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinda Codes of USPTO. <sup>3</sup>For USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. <sup>4</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>7</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.67 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.